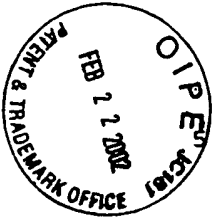


## ABSTRACT

**Manufacturing Test for a  
Fault Tolerant Magnetoresistive  
Solid-state Storage Device**



A fault-tolerant magnetoresistive solid-state storage  
10 device (MRAM) in use performs error correction coding and  
decoding of stored information, to tolerate physical  
defects. At manufacture, the MRAM device is tested to  
confirm that each set of storage cells is suitable for  
storing ECC encoded data, using either a parametric  
15 evaluation (step 602), or a logical evaluation (step 603)  
or preferably a combination of both. Failed cells are  
identified and a count is formed, suitably in terms of ECC  
symbols 206 that would be affected by such failed cells  
(step 604). The count can be compared to a threshold  
20 (step 605) to determine suitability of the accessed  
storage cells and a decision made (step 606) on whether to  
continue with use of those cells, or whether to take  
remedial action.

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[Figure 6]